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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:
Donald MORTON
Rishab K. GUPTA
David M. EUHUS

Serial No.: 07/431,533

Filed: November 3, 1989

For: URINARY TUMOR ASSOCIATED ANTIGEN, ANTIGENIC SUB-UNITS AND METHODS OF DETECTION

Group Art Unit: 1813

Examiner: H. Sidberry

Atty Dkt.: CADL:002/PAR

CERTIFICATE OF MAILING
37 C.F.R. 1.8

I hereby certify that this correspondence is being deposited with the U.S. Postal Service as First Class Mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231, on the date below:

10/3/95
Date

Steven L. Highlander

DECLARATION OF DR. RISHAB GUPTA UNDER 37 CFR §1.132

Assistant Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

I, Rishab Gupta declare that:

1. I am a U.S. citizen residing at 7118 Costello Ave., Van Nuys, California. Currently, I am Vice President of Education and Director of Immunodiagnosis at John Wayne Cancer

Institute. I have been employed by John Wayne Cancer Institute since July 1, 1991. I am a named inventor of the above-captioned application.

2. Attached to this declaration is a copy of my *curriculum vitae*.

3. It is my understanding that the examiner in charge of the above-captioned application has rejected the UTAA composition claims thereof as anticipated or rendered obvious by Paulie *et al.*, *Cancer Immunol. Immunother.* **17**:173-179 (1984).

4. I contacted Dr. Staffan Paulie, first-named author of the Paulie *et al.* paper, and requested samples of antibodies he had used to identify the 92 kD antigen described in the reference. In response, Dr. Paulie provided samples of two antibodies, 7E9 and P7A5, that are directed to the 92 kD antigen. 7E9 is described in the paper and P7A5 was developed from a later fusion.

5. The materials and methods for comparative experiments were as follows:

Two batches of UTAA 90 kD subunit were prepared on March 25, 1993 and on June 29, 1995. These were used as target antigen for Western blots at 5 μg per lane of an 8-16% gradient SDS-PAGE slab gel (Novax, San Diego). Electrophoresed antigen was transferred to nitrocellulose membrane, washed, blocked and cut into strips. The strips were reacted with the indicated antibodies

at the indicated dilutions according to standard Western blot protocols. Reactivity was determined using goat anti-mouse Ig conjugated to alkaline phosphatase, thereby detecting both IgG and IgM.

6. As can be seen from the attached Western blots, provided as FIG. 1 (Ab dilution 1:100), FIG. 2 and FIG. 3 (Ab dilution 1:500,), it is clear that the 90-100 kD UTAA antigen is not recognized by the antibodies provided by Dr. Paulie. Yet these antibodies have been demonstrated to react with the 92 kD antigen by Dr. Paulie. Thus, the 92 kD antigen described in the Paulie *et al.* paper is immunologically unrelated to the antigen being claimed in the above-captioned application.

7. It is my understanding that the examiner in charge of the above-captioned application has questioned the feasibility of "enhancement" of antibody production in human subjects. To address this concern, the attached FIG. 4 shows the enhancement antibody titers in four melanoma patients following administration of UTAA in the form of irradiated melanoma cells. These data demonstrate that administration UTAA can enhance the production of anti-UTAA antibodies over those levels already existing in melanoma patients.

8. I hereby declare that all statements made herein of my knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

September 29, 1995
Date

Rishab Gupta
Rishab Gupta

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